19-AA-0053

State of California
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

ORDER NO. 99-059

REVISED WASTE DISCHARGE REQUIREMENTS
for
CORRECTIVE ACTION PROGRAM
COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY
(PUENTE HILLS LANDFILL, MAIN CANYON)
(FILE NO. 57-220)
(Order No. 90-046)

The California Regional Water Quality Control Board, Los Angeles Region (Regional Board) finds:

1. The County Sanitation Districts of Los Angeles County (hereafter "discharger") operates the Puente Hills Landfill, a 1365-acre, Class III waste management facility located at 2800 Workman Mill Road, in an unincorporated area of Los Angeles County.

2. Current fill operations at the waste management facility are the subject of Waste Discharge Requirements (WDRs) adopted by this Regional Board in Order No. 90-046 (Monitoring and Reporting Program 2294) adopted on March 26, 1990, and subsequently amended by Order No. 91-035 on March 4, 1991 for the Main Canyon and Canyon 9 areas; and Order No 93-070 (Monitoring and Reporting Program 7336), adopted on November 1, 1993, and subsequently amended by Order No. 94-103 on September 26, 1994 for the Eastern Canyons Expansion area.

3. Order No. 90-046, Provision C.6, requires the discharger to institute a Corrective Action Program (CAP) if representative analyses of the groundwater shows a statistically significant increase in any Water Quality Protection Standard (WQPS), which are concentration limits for constituents of concern based upon established site-specific background concentrations. In addition, all fill areas are subject to the requirements of Regional Board Superorder No. 93-062, which implement the provisions of federal Subtitle D requirements, as contained in Title 40, Code of Federal Regulations, Part 258, as well as State landfilling regulations contained in Title 27, California Code of Regulations. These regulations specify that the WQPS for a CAP will not exceed background concentrations, unless the Regional Board finds that it is technologically or economically infeasible to achieve background concentrations.

4. Order No. WQ 96-10, adopted by the State Water Resources Control Board (State Board) on May 29, 1996, requires this discharger to implement an adequate CAP at the Puente Hills Landfill, where appropriate. The provisions of this Regional Board Order, as they are met, will complete the requirements of State Board Order No. WQ 96-10.

May 28, 1999

5. The Main Canyon area of the Puente Hills Landfill is underlain by a thick sequence of massive, low-permeability, sedimentary marine bedrock units. Unconsolidated surficial deposits, which include terrace deposits, alluvium, colluvium, landslide deposits, and artificial fill, can transmit limited amounts of water to the weathered bedrock immediately underlying the landfill. The limited amounts of groundwater in the unconsolidated surficial deposits and in the bedrock is impeded and extracted at Subsurface Barrier Nos. 1 and 3 in the Main Canyon area. At the east end of Subsurface Barrier No. 1, the uppermost groundwater occurs in more permeable bedrock, which is separated from deeper groundwater by confining bedrock and upward hydraulic gradients.

6. The Puente Hills Landfill is located in the Puente Hills, which lies outside of the Main San Gabriel Groundwater Basin. Groundwater underlying the landfill has significantly different natural characteristics than that of the Main San Gabriel Basin in terms of both quantities and quality.

7. The Main Canyon area of the Puente Hills Landfill is the oldest area of the landfill, and is unlined, but contains an operating landfill gas extraction system in addition to Subsurface Barrier Nos .1 and 3. Volatile organic compounds (VOCs) consisting of tetrachloroethylene (PCE), trichloroethylene (TCE), vinyl chloride, cis-1,2-dichloroethylene (cis1,2-DCE), 1,2-dichloroethane (1,2-DCA), 1,4-dichlorobenzene (1,4-DCB), and 1,1-dichloroethane (1,1-DCA), have been detected in some of the Main Canyon's Subsurface Barrier Nos. 1 and 3 downgradient groundwater monitoring wells. The VOCs have been detected in concentrations from below drinking water standards (Department of Health Services' Maximum Contaminant Levels), up to eight times drinking water standards.

8. Because of the low conductivity of the geologic materials underneath , and adjacent to, the waste management facility, and the massive nature of the bedrock, the estimated travel time for VOCs from the landfill to reach the nearest production well (located approximately 0.6 miles away) which is not in use, is on the order of three-hundred to thousands of years.

9. The discharger submitted a final Evaluation Monitoring Program (EMP) report on September 30, 1998, based upon numerous subsurface investigations performed between 1994-1998 that delineated the full lateral and vertical extent of the VOC releases near Subsurface Barrier Nos. 1 and 3 at the Main Canyon. This EMP report was approved by Regional Board staff on October 7, 1998.

10. The discharger prepared a Final Engineering Feasibility Study (Feasibility Study) based upon the findings in the final EMP, exploring eighteen corrective action technologies to mitigate the VOCs at Subsurface Barrier Nos. 1 and 3.

11. Based upon the results of the Feasibility Study, the discharger submitted a Report of Waste Discharge (ROWD) on January 11, 1999, which proposes a CAP that continues source control by operation of the existing Subsurface Barrier Nos. 1 and 3 groundwater extraction systems, enhanced landfill gas control, and allowing natural attenuation for offsite areas. Groundwater monitoring will be used to measure the effectiveness of the CAP.

12. Pursuant to the current State landfilling regulations contained in Title 27, California Code of Regulations, Section 21730(c), the discharger discussed the findings of the final EMP Report, the Feasibility Study, and the proposed CAP at a public workshop held on December 17, 1998, which was attended by Regional Board staff.

13. The Regional Board adopted a revised Water Quality Control Plan for the Los Angeles Region on June 13, 1994. The Plan contains water quality objectives for groundwaters of the Main San Gabriel Groundwater Basin. Beneficial uses include municipal, domestic, and agricultural supply, and industrial service and process supply. The requirements in this amended Order, as they are met, will be in conformance with the goals of the Water Quality Control Plan.

14. The adoption of this CAP is being taken for the protection of the environment, and as such, is exempt from the provisions of the California Environmental Quality Act (Public Resources Code, Section 21000. et. seq.) pursuant to Title 14, California Code of Regulations, Section 15321.

IT IS HEREBY ORDERED that Order No. 90-046, adopted by the Regional Board on March 26, 1990, is revised by adding the following provisions:

J. Provisions for the CAP

1. The CAP for the mitigation of VOCs at Subsurface Barrier Nos. 1 and 3 at the Puente Hills Landfill shall consist of source control by continued groundwater extraction at the barriers, enhanced landfill gas control, and allowing natural attenuation for offsite areas.

2. The WQPS for the CAP at Subsurface Barrier Nos. 1 and 3 of the Main Canyon are as follows:

Constituent	Laboratory Method*	Method Detection Limit (MDL)	WQPS
PCE	8260	1 µg/L	1 µg/L
TCE	8260	1 µg/L	1 µg/L
Vinyl chloride	8260	0.5 µg/L	0.5 µg/L
cis 1,2-DCE	8260	1 µg/L	1 µg/L
1,2-DCA	8260	0.5 µg/L	0.5 µg/L
1,4-DCB	8260	1 µg/L	1 µg/L
1,1-DCA	8260	1 µg/L	1 µg/L

*All laboratory test methods are from "Test Methods for Evaluating Solid Waste-Physical/Chemical Methods" (SW846), 3rd Edition, U.S. EPA .

For any VOC not specified in this table, the WQPS will be the estimated quantitation limits specified in U.S. EPA Method 8260. The estimated quantitation limit is the lowest concentration that can be reliably achieved within the specified limits of precision and accuracy during routine laboratory operating conditions.

3. Within 30 days following the adoption of this Order, the discharger shall submit a timetable for implementation of the CAP that is acceptable to the Executive Officer.

4. Within 60 days following the adoption of this Order, the discharger shall begin implementation of the CAP by the submission of detailed design plans acceptable to the Executive Officer.

5. Within 60 days following the adoption of this Order, the discharger shall implement the amended Monitoring and Reporting Program (MRP) CI 2294 to demonstrate the effectiveness of the CAP.

6. The discharger shall submit semi-annual reports to the Regional Board that describe the effectiveness of the CAP, according to the schedule outlined in revised MRP CI 2294.

7. If the discharger determined that the CAP does not satisfy the provisions of Title 27, California Code of Regulations, Section 20430 (i), the discharger shall, within 90 days of making the determination, submit an amended ROWD to make appropriate changes to the CAP.

8. All limitations, requirements, and provisions of Order No. 90-046 or any other amendments thereof, remain in full force and effect.

COUNTY SANITATION DISTRICTS
OF LOS ANGELES COUNTY
PUENTE HILLS LANDFILL
(Corrective Action Program)
Order No. 99-059

File No. 57-220

I, Dennis A. Dickerson, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Los Angeles Region, on June 30, 1999.

DENNIS A. DICKERSON
Executive Officer
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STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD, LOS ANGELES REGION

REVISED MONITORING AND REPORTING PROGRAM NO. 2294 (CORRECTIVE ACTION PROGRAM)
for
COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY
(Puente Hills Landfill – Main Canyon)
(Order No. 90-046)
(File No. 57-220)

Monitoring and Reporting Program No. 2294 for the Main Canyon at the Puente Hills Landfill is being revised to incorporate the following Monitoring and Reporting Program for the Corrective Action Program (CAP), pursuant to Title 27, California Code of Regulations, Section 20430. All other provisions of Monitoring and Reporting Program No. 2294 remain in effect.

The County Sanitation Districts of Los Angeles County (hereafter discharger) shall implement this Monitoring and Reporting Program within 60 days following the adoption of Order No. 99-059:

I. GROUND WATER MONITORING

A. The following groundwater monitoring network shall constitute the Corrective Action Program Monitoring and Reporting Program at the Main Canyon of the Puente Hills Landfill:

Monitoring Well	Location	Depth (feet)	Comment
MO4A	Barrier No. 1– downgradient; onsite	60	Well impacted
MO4B	Barrier No. 1– downgradient; onsite	110	Well not impacted
MO5A	Barrier No. 1– downgradient; onsite	76.5	Well impacted
RMW6	Barrier No. 1– downgradient; onsite	91	Well impacted
M10B	Barrier No. 1– downgradient; onsite	90	Well impacted
M11A	Barrier No. 1– downgradient; onsite	45.5	Well not impacted
EMP4	East of Barrier No. 1– onsite	183.5	Well not impacted

Monitoring Well	Location	Depth (feet)	Comment
M31A	Barrier No. 3– downgradient; onsite	76	Well impacted
M33A	Barrier No. 3– downgradient; onsite	81	Well impacted
R32B	Barrier No. 3– downgradient; onsite	130	Well not impacted
R34B	Barrier No. 3– downgradient; onsite	130	Well not impacted
EMP2	Offsite; north of site	230	Well not impacted
EMP3	Offsite; north of site	199	Well not impacted
EMP6	Offsite; north of site	228	Well not impacted
EMP5	Offsite; west of site	28	Well impacted (one VOC detected)
EMP1	Offsite; west of site	35	Well not impacted

B. All of the above groundwater monitoring wells shall be sampled for the monitoring parameters and frequencies listed on Table 1.

II. GROUNDWATER QUALITY REPORTING

Quarterly monitoring reports shall be submitted by the discharger by the dates listed in the following schedule:

Reporting Period	Report Due Date
January – March	May 15th
April – June	August 15th
July – September	November 15th
October – December	February 15th

III. CAP REPORTING

Semi-annual monitoring reports that describe the effectiveness of the CAP shall be submitted by the dicharger by the dates listed in the following schedule and incorporated into the appropriate quarterly groundwater quality monitoring reports :

Reporting Period	Report Due Date
January - June	August 15th
July-December	February 15th

Ordered By:

DENNIS A. DICKERSON
Executive Officer

Date: June 30, 1999